

A

SMALL CONTRIBUTION

TO THE

GREAT EXHIBITION OF 1851.

BY

J. C. H. FREUND, M.D.

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A SMALL CONTRIBUTION,

ETC.,

TO HIS ROYAL HIGHNESS PRINCE ALBERT.

PRINCE !

YOUR Royal Highness has been identified with a great undertaking: the Great Exhibition of all Nations of 1851. Your Royal Highness has been both lauded and blamed in unmeasured terms. This is only the natural consequence to which the originator of a great plan must submit, be he a prince or a man of common birth. I readily join in the praise bestowed upon your Royal Highness, for even the conception of the gigantic idea of exhibiting on one little spot the collection of the produce of genius and industry of the whole world; history records us no like example. But to identify your Royal Highness with all the evils not necessarily but possibly to follow in the train of such an undertaking, is unfair and unjust. Man, while attempting to realize a great good, and to bestow a great boon on mankind, should be as little blamed or made answerable for the accidental evil or abuse arising possibly out of his best endeavours—as little as the wind, rain, and sun when in their turn, together with the all-powerful good they produce, they cause at times tempest, deluge, and pestilence.

The variety of objections raised against the approaching exhibition by the well-wisher as well as the

sceptic, and which, hydra-like, grew in number as quickly as they were refuted and annihilated, have, no doubt, almost all of them contributed to consolidate in your Royal Highness and your powerful co-operators many a doubtful view, and to impart strength and boldness to measures conceived perhaps with vacillation and timidity, "*Per aspera ad astra.*"

The many objections regarding the usefulness and the practicability of the undertaking, the kind of building, its site and stability, may be hoped have all vanished by this time; but there is one objection raised lately with redoubled strength and apparent evidence, which, having made a striking impression, claims the most impartial inquiry and illustration. It is the question of *Disease and Health*. I confess with thousand others, that this is an important question; but I do not agree with all those who proclaim that disease and pestilence will and must be imported from abroad on this occasion, or must necessarily be engendered here; yet I would with them recommend the strongest measures of precaution to be adopted. And it is the consideration of this question and of these measures that has encouraged me to embody my views in the following pages, and to address them publicly to your Royal Highness.

In reference to this great question, there has lately been published, and addressed to your Royal Highness a pamphlet called "*The Philosopher's Mite to the Great Exhibition,*" a copy of which has only a few days ago come into my hands. This pamphlet, although containing many a laudable hint, and although written with great impartiality, rhetorical emphasis and historical research, which I cannot attempt to equal,

will, however, captivate and entice only the superficial reader into fear of coming disasters by the apparently plausible facts adduced in it.

A more attentive perusal will deprive these facts of their appalling evidence, and remove the fear which they cannot but have produced in the minds of many. The philosopher has cited with too much anxiety the effects and evils of large congregations without inquiring with the same ingenuity into their causes, and without asking himself whether these causes exist now.

Above all, the following three points should be remembered:—

1. The approaching exhibition will bring together to a great extent, men of genius, industry and agriculture, hardworking mechanics and labourers, for the only purpose of viewing and admiring their mutual productions. The number of demoralised and depraved characters will certainly be few.

2. It would not be difficult to prove that not all large gatherings of men for a peaceful purpose, have, as a *sine quâ non*, disease and pestilence in their train, as maintained by the philosopher.

3. And it can be fully proved, that, wherever such gatherings have been productive of epidemic diseases, the authorities and the people have not always instituted and followed the necessary preventive measures, in order to counteract either the origin or the propagation of such diseases.

It is impossible for me to enter into all the facts and dates cited from history by the philosopher; time pressing, I can only refer to a few, which I hope will suffice to diminish the fears his publication must

have given rise to, and to confirm the opinion I have taken the liberty to state above.

"*The Black Death*" in the reign of Edward III. having been, in the general opinion, of a pestilential character, I shall include it when subsequently speaking of pestilence, as its causes and consequences have been similar to those explained by me more fully in the course of the treatise.

"*The Sweating Sickness*" is referred to by the philosopher. The men brought in 1483, by Richmond, to deliver his country from a so called tyrant, were in the words of the author "a motley army of aliens." Will the men about to be brought together by the exhibition of 1851 be similar to the men composing such an army? Or is the circumstance of their having all landed *at one port*, Milford Haven, similar to the arrival of our expected visitors, who will neither land at one port nor at one time?

"*The great Oriental Sacred Gatherings*" afford no parallel to an assembly in *the North of civilised Europe*, the difference of the climate of both countries, and the great moral difference of both people, together with the nature of the meetings; the first being more likely to excite the feelings to excess than the other, certainly insure for our assembly all chances of immunity from pestilence.

"*The records of the Medici*" need not fill us with any apprehension, for at the next exhibition there are no people expected "who are driven from one city to another by the calamities of war."

Neither is there any fear, Prince, that great and good men will this time be execrated, defamed and

murdered by a mob, because, as the philosopher states, if disease should arise, they always concentrate their rage on individuals, and are stupidly identifying the cause of pestilence with the originators of large assemblies.

The moral and common sense possessed now, even by the lower classes of society, banish such a fear. We have witnessed in our own time the repeated occurrence of epidemics; and although many prejudices have been raised by some malignant or silly persons against the higher and wealthier classes, who in one instance were supposed to have poisoned the water in order to get rid of the poor, yet the conduct of the same poor was admirable and most enduring.

Prince, you are reminded "of the influx of the invaders in your own father-land, and the pestilence which they brought with them."

"Thank God," says the author; "the English are only going to be visited and not invaded;" and to this striking refutation of his own argument I take the liberty to add, "visited" not by Huns and Gauls, but by the *élite* of the civilised globe, called by the philosopher the *débris*.

"The motley collection brought together from distant parts to join in the praise of the Deity, or in defence of religion" cannot possibly be compared to the kind of men about to assemble in the British metropolis. The zeal of a merchant—the acute attention of an agriculturist—the sober mind of a clever mechanic or industrious labourer, and the contemplative mood of a philosopher, or even the leisure mind of a curious idler, are far different from the fanaticism of a man fighting for religion or the devout supersti-

tion of a pilgrim, who, after many days and weeks of fatigue, reaching the place of his destination, is often neither provided with the necessary provisions, nor if provided, known to spend all his time in temperance and abstinence.

A collection of people in "the temple of Solomon" (himself not a great example of temperance and chastity), or a collection of people "in the plains of Hindostan," cannot and should not be compared to a collection of people who congregate either for the purpose of curiosity, which enlightens and instructs, or to exhibit the productions of their talent and industry for the purpose of encouragement and gain.

"The law which influenced the introduction of the pestilence of 1483, 1485, 1506, 1517, 1528 and 1529," is *by no means* necessarily applicable to the 19th century, and to 1851. The fighting armies of those times, composed often of the refuse of society, or of people driven to despair, may have brought and engendered disease. The multitudes of deaths and the crowds of dead unburied, give no guarantee against such a melancholy visitation; but the civilised state of our society, the ready aid in time of sickness, and above all, the immense number of comfortable domiciles, open to invited visitors, yet shut against disorderly soldiers and reckless invaders, *certainly* give such a guarantee.

"The recurrence of the pestilence in the year 1485, that was two years after all England had offered up prayers and thanksgivings for the withdrawal of what has ever been considered the Divine scourge in the year 1483," may be best accounted for by citing the author's own words in another page, although I can-

not subscribe to all the sentiments expressed there. He says, p. 22, "No nation has a greater disgust to such considerations than the British people. During the calamity, indeed, their social system supplies ample means for relieving exigencies; but even when the danger of approach is most imminent they hesitate to converse and much less to read upon it. The danger once over, they have a sullen pleasure in burying and forgetting its horrors; and unlike other nations, their public thanksgiving once recorded, they consider the whole subject as a sealed book, which no poet, no painter, no architect must presume to commemorate, and with regard to which the less said by the annalist the better. Your nobility and your statesmen are not exempt from the same national peculiarity. Infinitely inferior as all your social arrangements are for public health to those of Rome, yet many of your legislators churlishly think that too much has already been conceded to the public demands in this particular department."

Who will affirm that at the very time the thanksgivings were offered up, after that great pestilence, all the traces of the malady had disappeared, or that there was no room for the multiplied duties of a board of health?

"*Leicester Square*" is mentioned by the author where upwards of threescore of foreigners have been supposed to lodge in one house in Castle Street. If this be even granted, it must first be shewn whether this produced any particular epidemic disease in those quarters? The over-populated districts of White-chapel — by the poorest of a part of the same foreigners — are neither productive of epidemics, nor the cause of greater mortality.

In the philosopher's opinion, the excitement during the next exhibition may be expected to surpass that of any other gathering of men for whatever purpose; for the incentive held up to the world will prove that the worshippers of Mammon exceed those of religious enthusiasm or patriotism. To this I reply, that figures and the calculations of a merchant are known to go hand in hand with a sober mind; and that our very age is the time of sober calculation, a railway mania now and then excepted.

The fairs of Leipzig and of Frankfort, and especially those of the former city, have for centuries been known to cause an influx of the most various people from all parts of the mercantile world, who have all assembled for no other object than the love of Mammon. History, however, records no instance of epidemics or increased mortality on those occasions.

"The Committee is asked what number of visitors it does expect? 40,000? 100,000? A million has been heard of:" the author's opinion is in favour of the latter number. What is even 1,000,000 extra population spread over four or five months in a town which is said to be in the constant habit of receiving 100,000 strangers every day, from the 1st of January to the 31st of December, and these 100,000 individuals moving and lodging for the most part in the small space between Piccadilly and the Docks of London; while the 1,000,000 expected now, will spread over all London, and a great portion not fail to live out of town, many accepting the hospitality of their friends. Cheap excursion-trains to Richmond, Brighton and Windsor, etc., will further assist in dividing the num-

bers, and we need therefore not apprehend that London will be *over-animalised* on this occasion.

The author very consistently carries through the idea of the injuries inflicted upon the human race by over animalisation; but, referring to the annals of the various European medical boards, to show that most violent outbreaks of epidemics have occurred in barracks, I am glad to find that he adds "not in barracks" that receive their commensurate number of troops, but where an undue and accidental influx of troops has over animalised such buildings. It is admitted by this that such epidemics have not broken out in the barracks which only receive their proper number; and it remains to be seen whether, at the expected exhibition, a like number of 1,000 to 2,000 people will lodge and board in one and the same house.* A like civil, but not military, contingency is, therefore, *not* likely to threaten your grand and benevolent scheme. "Even the voluntary influx of free citizens from all parts" is not beyond some control, if the necessary measures *are adopted*.

The author proceeds, that the river is reeking with noxious vapours, and is apprehensive of injurious effects therefrom upon the health of the visitors. I fully concur that Father Thames should certainly have been purged long ago; but if the two millions inhabitants of London, together with the constant influx of strangers, have not been poisoned by him as yet, the addi-

* Even in case such a building should be found necessary, the inmates will prove of different character than soldiers in the time of war; and the most common measures of precaution will suffice to prevent mischief. The model lodging-houses of Camden Town, etc., prove this most uncontradictorily.

tional people coming to the exhibition will not be worse off. Could the Thames be transformed into an Augean stable, and a Hercules be found once more to cleanse it, the foreigners together with their hosts might certainly make him the worthy subject of a testimonial.

Dr. L. Franck, who, after sojourning with the French army in Egypt, subsequently resided for a year in Tunis, and travelled for six years over the Continent of Greece, principally for the purpose of investigating everything connected with the plague, is even adverse to the idea of the production of the pestilential poison being in any way connected with the overflowing of the Nile and the slimy refuse left behind on the shores of the inundation. The Nile begins to decrease in September, and in December all the waters disappear from the inundated surfaces. If the putrefaction of these stagnant waters, he says, could produce the plague, this disease should manifest itself chiefly in the months of October, November, and December, whilst in fact it very rarely occurs in these months.

The *graphic sketch of the plague of Athens* alluded to by the Philosopher need not alarm us, as its cause was derived from a crowded population driven together by the calamities of war; and I shall take occasion to explain this more fully subsequently.

The apprehension of "a new introduction of cholera" can certainly at no time be denied, and much less so, as the period of its real occurrence in this metropolis is not far removed from our recollection. But what precautionary measures can even do as regards this epidemic, we have seen during its prevalence in 1848, and more especially at its re-appearance in 1849.

The assertion of the Philosopher, that the mortality of London from cholera in 1848 has been greater than in any other town of the Continent in proportion to its population, is based on error. By comparing the bills of mortality we, for instance, find that the number of deaths at Vienna and Paris far surpassed those of London.

The Philosopher, I think, also goes too far when he maintains that every gigantic scheme for human improvement has encountered dire reverses. Has, for instance, the introduction of the gigantic power of steam met with any proportionate reverses, though it brought men in speedy conflux to congregate by thousands, where formerly they slowly met by tens and scores? Has this caused any proportionable increase of mortality? The fable of Icarus is even adduced to strengthen the author's assertion. The invention of steam and the electric telegraph annihilating space and time, far surpass the boldest soaring of Icarus to the skies, who after all may have been only an *unfortunate* Green of our times.

The Tower of Babel is also brought forward to illustrate the opinion of the Philosopher, that men should only improve step by step, and not by any extraordinary flight. I hope the Philosopher will grant, that the different nations having had for a number of years, separate exhibitions in their different capitals, the metropolis of the world may, as a climax of these gradual exhibitions, and with the easy means of communication at its disposal, carry out one of unparalleled magnitude by uniting all nations.

"*The communications*" which the Commissioners have with standing Committees at Malta, and the shores

of the Mediterranean generally, are likewise mentioned as a farther proof to justify our cholera apprehension. The author forgets that those shores have been before, and still are, in constant communication with this country, receiving and sending to London in the course of the year not a small number of sick people, who come home from India and Egypt.

The communication of cholera by contact, from individual to individual, is as yet only surmised, by no means decided. It may seem extraordinary, but it is a fact, that even the origin and propagation of a disease like the plague, which has in all ages been the scourge of mankind, should have always been the subject of doubt, or at least of much difference of opinion. It is to this day disputed whether the plague be propagated by contagion or not; and it must be admitted, that there are difficulties attending either supposition. The medical officers of the French army, during their campaign in Egypt, experienced the effects of the contagion so much, that about eighty of them perished by the plague within one year, as is related by Dr. Sotira, who was one of the survivors. In the two following years it was thought expedient to employ Turkish barbers to dress buboes, blisters, etc. and in consequence of this arrangement, only twelve medical officers died in twice the former time. Only half of the Turks who were employed took the plague, and it proved fatal in only a few instances. And on another occasion, where Turks had been employed to bury the dead, very few of them, if any, were at all affected by it.

A similar discussion has been carried on respecting the epidemics of our own times, especially respecting

the yellow fever of the West Indies and America. The most intelligent writers, however, concur in ascribing epidemic diseases to two sources; namely, to the miasmata or effluvia of marshes, and to contagion or the exhalations and secreted matter from the bodies of persons diseased. To the former source, *marsh effluvia*, the intermittent and remittent fevers, which are endemic in particular districts at certain seasons of the year, and often extensively prevalent and fatal, are generally ascribed; and they are distinctly traceable to certain combinations of heat and humidity acting upon vegetable and animal soils. Hence in the autumnal season, flat marshy countries, the seat of camps, etc. and the uncleanly parts of crowded cities, have generally been observed to be productive of intermittent and remittent fevers. Now, some of these circumstances are supposed to concur also in favouring the propagation of, if not to give origin to, the plague; whence the difficulty of admitting the contagious source of the latter has arisen. Besides, we know, that in many places the plague has seldom been entirely absent (single cases constantly occurring), but has raged epidemically and fatally only at particular times, though men had never ceased to be in constant communication with each other. Thus it may be collected from the bills of mortality of London itself, that although there were but four great plague years in this metropolis during the seventeenth century (1603, 1625, 1636, 1665, mortality in the two first 35,000 in the two last 68,000), yet that there were but three years from the commencement of the bills of mortality in 1603, until 1670, which were entirely free from the plague; 900

having died in 1604; 400 in 1605; 2,000 in 1606; the same in the two following years, and even so late as from 1640 to 1648, the numbers every year exceeding 1,000.

Dr. Russell, whose authority is cited by the philosopher, to illustrate *his* fears, has observed that in winter time, when infected persons had come to places about Aleppo, some of whom have died of the disease in the families where they lodged, the distemper was not by such means propagated. More important still is the statement of Dr. Hodges, by which we are informed of the total freedom from infection experienced by those persons who had fled from London during the ravages of the plague in the autumn of 1665, when they returned in the winter to the houses and beds in which their friends had died of the malady without any previous purification, having been made of the very linen and cloths which they had used.

It is likewise an indubitable fact, that the plague has always first appeared and established its headquarters in the filthiest parts of crowded, ill-constructed and large cities, and has committed its most fatal ravages among the lowest of the people. In London, Whitechapel and St. Giles's were strong instances of it, and hence the name of the *poor's* plague.

The fact is, the human body is disposed to be acted upon by the contagion much more under *certain circumstances*, which materially influence the state of the constitution; that is a certain *predisposition* for the production of all diseases, and for the operation of contagion in particular, is absolutely necessary; otherwise it could not happen, that great numbers should

escape during the whole reign of an epidemic. This truth is most evidently proved in our every-day life; a dozen persons exposed to the same cold and damp weather contract a variety of diseases; one a diarrhœa, the other an indigestion, the third an intermittent fever, the fourth a severe bronchitis or an inflammation of the brain. Again, one and the same person exposed to cold and damp weather gets at one time afflicted with cough, at another, with an attack of spasmodic cholera; at another he entirely escapes free. We are differently disposed for catching diseases in the morning, after a good night's rest, from what we are in the evening, when exhausted by the labour and anxiety of the day; our constitution is even differently disposed after a meal from what it had been before; and we must therefore come to the conclusion generally adopted, that besides the influences of age, sex and temperament, together with the disposition of the mind, it absolutely requires a certain *predisposition* to make us accessible to infection. We must not accuse the atmospheric air of inflicting upon mankind all the severe trials of disease and distemper; and I cannot better illustrate this important idea, than by citing the words of Dr. Heberden, the great inquirer, into this subject. He says, "a proper state of the air is not the only circumstance necessary to promote the operation of contagion. During the epidemical constitution, it is highly probable that good diet, and good spirits, and cleanliness, and fresh air, and proper clothing, and exercise, may all contribute to render the body less susceptible of disease, the seeds of which, like those of vegetables, will then only

spring up and thrive when they fall upon a soil convenient for the growth."

And here we find the explanation why pestilence frequently occurs in combination with dearth and famine, which, thanks to a departed statesman, and a still living philanthropist, do not exist at present. The disposition above stated may be greatly increased, by a moderately warm and moist temperature (diminished electric tension), and where persons weaken themselves by excessive fatigue, exercise, sexual indulgence, or intoxication; and this may give a clue to the great mortality alluded to by the philosopher, as occurring among crusaders and pilgrims.

Plagues and epidemic diseases generally must, therefore, first find the *predisposition*, must first destroy all the resistance offered by the present state of society, which is better clothed, lives better, is more careful of cleanliness, and better housed; they must then destroy all the advantages afforded by the construction of our streets and houses, before they can get a footing and ravage as of yore. The great check given by timely medical aid, and derived from improved science, I will only allude to here.

It must be granted, with the Philosopher, that a truly paternal government is bound to provide accommodation and safe residence for all the guests, if it chooses to invite them; but that the forthcoming exhibition will "furnish the spark falling upon a rug, so as to make a general conflagration out of an isolated case of cholera, perhaps still lurking in one of the ports, through the overcrowded vessels which will bring foreigners to these shores," cannot be admitted.

It is generally known, that for many years past ships have imported weekly during the spring and summer season, many hundreds of the poorest classes from Germany and Ireland, who stay here some time, and then emigrate to America. Have they ever given occasion to kindling a spark into a general conflagration? And these poor emigrants are by no means provided with the accommodation and the necessities of life which will be offered in abundance to our expected visitors, and thereby also assist to diminish the chances of disease.

The reference to "the history of sieges" by the Philosopher is quite inapplicable to the present occasion, and an unsuccessful argument; because neither the inviters nor the invited will have to smart under the miseries usually endured by the besieged and the besieger.

The two other facts adduced by the Philosopher as important, "that men coming from certain latitudes are prone to undergo dangerous fermentations of the blood, and that in the modern mode of travelling men no longer reach our metropolis in groups of some half-score at a time, but by hundreds and thousands," are by no means more successful arguments. He will admit, that these visitors coming to England from certain latitudes in the summer 1851, are not likely to ferment differently from those who have come to London in all the preceding years; and he himself grants, as regards the second point, that strangers, since the introduction of the modern mode of travelling, have come to London before in thousands. And I will remind him only of the year '48, when cholera was at its height, and the influx of

political refugees of all nations, and of all countries, immense, and that these refugees, shipwrecked in health and fortune, came from vast assemblies which had been pressed together, and torn asunder by war and revolution.

“The exotic diseases carried by the Crusaders and the discoverers of the New World with them into various parts of Europe,” and referred to by the philosopher, have most of them become endemic and sporadic in all parts of the inhabited globe; but rendered most mild in modern times by the moral sense of the people, and principally by judicious medical treatment; and are certainly as little unknown in England as in any other country. We therefore need not fear their new introduction by foreigners.

But it has struck me with surprise to see the Crusaders even mentioned by name on this occasion. What does the philosopher compare us to? Neither art nor science, says he in another place, can remain stationary; and will he maintain that man does? Nearly eight centuries and a half have elapsed since the time of the Crusaders; and if the philosopher, and the divines he refers to, are to be believed, mankind has never been more ripe for a pestilential lesson than now; and London is, in the year '51, not to stand a better chance than the cities and countries in the ninth century, when they were devastated and laid bare by those hordes, whose undertaking (but for the improvements in manufacture, art, and science, and the classical languages imported by them into then barbarous Europe,) has been universally characterised as a most extraordinary monument of human folly.

If intimidation and fear had been aimed at, which, of course, I cannot believe, from its danger, it could not have been more erroneously and further fetched, than by reminding your Royal Highness of the Crusaders. Fear is a formidable precursor of pestilence, and a most destructive weapon during its prevalence. It is a fact that, when the cholera reigned in Austria and Hungary some fifteen years ago, it carried away more victims from fear than from the malady itself; so much so, that the latter went by the name of "*fear fever*."

But to return to the Crusaders. We know that there have been eight or nine Crusades, carried on for two centuries, to four of which I shall allude. The first motley assemblage is described to have consisted of monks, artists, labourers, lazy tradesmen, minstrels, prostitutes, boys, girls, slaves, malefactors, and profligate debauchers,—in fact, of some four to six hundred thousand of the most stupid and savage refuse of the people, who mingled with their devotion a brutal licence of rapine, prostitution, drunkenness, and were animated solely by the prospect of spoil and plunder. Some Counts and Gentlemen joined this motley multitude, with a view of sharing in the spoil. They commenced their pious devotion at Verdun, Treves, Mentz, Spire, and Worms, where thousands of innocent people were massacred and pillaged. At Constantinople, regardless of the kindness of the emperor, their benefactor, who, taking pity on them, had conducted them thither, after their arrival in the East in a most hopeless state, and had requested them to wait till followed by their brethren, they spared neither gardens, nor places, nor churches, from their devastation.

Could we wonder if disease and pestilence were brought home by such an assembly? The contrary is proved by the second Crusade, undertaken by a somewhat better class—under men like Godfrey, Robert, Duke of Normandy (eldest son of William the Conqueror), and Stephen Chartres, Blois, and Troyes, who all, without much discomfiture, reached Constantinople in 1096, although their number included one hundred thousand cavalry and six hundred thousand pilgrims.

The seventh Crusade, by the Emperor Frederick II., 1228, who, on his landing in Palestine, was entirely bent on peace, experienced no calamities. The next, in the year 1248, undertaken by Louis IX. of France, carrying war and devastation before him, suffered from a most formidable pestilence, he himself falling a victim to it.

We see from this that even the Crusaders, when either consisting of a somewhat better class, pursuing their course without devastation and disorder, or coming with anything like peaceful thoughts, have not experienced those calamities which are so much feared by the philosopher, from the arrival of foreigners at the next exhibition.

I admit with the author, that “as yet there has not been too much conceded to the public demands for public health.” “Social improvements,” he says, “have in this country, for the most part, been forced upon Ministers; not so much by the power of general outcry, as by the keen remonstrance and biting sarcasm of a few enlightened and persevering philanthropists.” But this cannot surprise in a country where it is an integral part of the Constitution to centralise power

as little as possible, and to leave to individual exertions all charitable and social improvements. It certainly has its evil as well as its good.

But "what Vattel has said of the natural law of nations" does *not* "equally apply to the law of epidemics;" the latter is *not* immutable, and the people *can* change it or escape from its influence; and it *certainly* depends upon human opinion. We know, for instance, of cities, districts, and whole countries where epidemics have either been checked, or if not entirely rooted out and removed, have at least been rendered mild in their effect and extent. It is not unknown that intermittent fevers (ague) have been totally banished from districts which were desolated before by their dire influence. We also know of endemic diseases having been totally changed in character and destructiveness; we know even from this metropolis, that the influence exercised by gradual improvements in the habits and social relations of its inhabitants has been so potent and productive of so much good, that its mortality in the worst time of the year now is less than that of old in its best season. Or does the Philosopher forget what Jenner did for mankind by his simple vaccination? So much depends upon the opinion and practical foresight of men even in the laws of nature with respect to health. And I most readily concur, therefore, with the author that the duties of a Board of Health should not be confined to those of cleansing and draining, but ought to extend to survey of buildings, plans of streets, the accommodation afforded at theatres and other places of public amusement, the state of the markets, the prevailing quality of food, the condition of crews and passengers on their arrival, and I would

add the prices of meat, bread, and drugs (at least for the poor as regards the latter) the selling of poisons, and, as much as practicable, the medical superintendence of a certain class of individuals as is the case in all large towns of the Continent, but which I will not further comment upon here.*

The proposal of the Philosopher, that an officer of health should take cognizance of passengers and crews on their arrival is most practical, and would more especially prove of the utmost advantage on the present occasion. But his proposal of opening gratuitously to all the visitors all public gardens, zoological, horticultural, and botanical, etc., etc., I cannot approve of; for though such an act of hospitality is prompted by most honourable motives and generosity, it might, I think, rather tend to produce the very evil which the Philosopher is so anxious to prevent by it. Should the admission be free, the crowds would be overwhelming and the re-creative and beneficial influence on the health otherwise derived from some hours' stay in these gardens, thereby much diminished.† Nine-tenths of the visitors will be able and willing to pay the trifle asked for the admission. Besides, all these public gardens are private undertakings and not over-rich; and it would, therefore, be the height of injustice to deprive them of the rich harvest they are likely to obtain from the numerous visitors. It is

* An incalculable amount of misery would thereby be spared to society.

† For the same reason I am of opinion, that the admission to the exhibition should not be free on all days, in order to diminish the crowds. It may even be asked, whether the prices might not be different on certain days of the week as a measure of health.

only a sixpence or a shilling to the individual, but a question of thousands of pounds to these societies. It is true, the visitors have been invited; but the chances of gain in money and reputation are being offered to a great number of them, for which they owe a debt of gratitude to the originator of the exhibition and to the institutions of his adopted country.

The subdivision by that author of the population of London into the ephemeral or day tenants and the nyctemeral or day and night tenants, is a most happy one, and the hint founded upon it to recommend sleeping out of town, wherever it is practicable, is most judicious and cannot be too strongly impressed upon the strangers by the Commissioners of the exhibition.

Causes of the great mortality from epidemics in former times, and which I maintain do not to a great extent exist now.

Having denied the inference drawn by the philosopher from epidemics of former times, and declared it inappropriate even to feasible emergencies in our own time, I feel it my duty to prove my assertion by citing some details from most unquestionable authorities. We shall find that these causes originated from the folly, superstition, and depraved moral character of society on the one hand, and from the absurdity of the measures adopted by the very authorities, who should have been the guardians of the public health.

The ordinary moral rules of conduct have generally been entirely laid aside, and vices, follies and crimes of every description contributed to augment the sum

of miseries which those pestilential and other epidemic calamities have brought with them. The extreme uncertainty of the tenour of life, when every day might probably terminate it, seemed to loosen the moral ties of the people, partly because multitudes of those who were the arbiters of individual character were destroyed; partly because in the general confusion, the chance of easy detection was much diminished, and partly because the probability of having to undergo punishment was exceedingly small. Similar calamities in our times have rather tended to *strengthen* the moral ties of the people than otherwise, and if authorities die now, authority survives. The extreme and sudden changes of fortune, too, which the deaths of whole families brought unexpectedly to many, unhinged the moral feelings, and left the indulgence of the passions to be pursued with little control. *Thucydides* has drawn a striking picture of the dissolution of morals at the time of pestilence at Athens. After stating that the people not knowing what to do or whither to go, began to neglect all their duties sacred and profane, he observes, that the rites of burial were not performed at all, or performed in the most irregular manner (a ceremonial, we know, otherwise attended with so much scrupulous regularity). But the depravities of society showed themselves also in other respects, for the people dared to do many things openly which they were heretofore compelled by shame to conceal. They calculated upon their sudden change of fortune, deemed it right to set about the immediate enjoyment of inherited property, and gave themselves up to pleasure, considering that they in time might be deprived of the treasures of life itself in a few days.

Nor was any individual disposed to undertake any labours for an honorable reward, because he thought it uncertain whether he should not die before he could obtain it. Whatever each person deemed agreeable or lucrative to himself, this he considered as expedient and honorable; and he did not allow himself to be restrained in the pursuit of it, either by the fear of God or of human laws. This indifference to all moral and religious duties, arose partly from the circumstance that the fulfilment or neglect of them appeared to be equally unavailing, for all equally perished, and partly from the general expectation that no one would survive a sufficient length of time to undergo trial and punishment. And many persons considering themselves already doomed by fate to worse punishment than the laws could inflict, determined to enjoy some of the pleasures of life before the time of suffering arrived. (*Thucydides* lib. ii. § 53).

Very similar accounts of the dissolute state of the public character during the time of pestilence, are related by other writers, who have witnessed these calamities of a later date. In the interesting description of the plague of Florence in the year 1348, given by Boccaccio in his introduction to his Decameron, many allusions are made to this lawless condition of the city. After describing the different views which some persons adopted as to the mode of self-preservation, he says, "others maintained free living to be a better preservative, and would balk no passion or appetite they wished to gratify, drinking and revelling incessantly from tavern to tavern, or in private houses, which were frequently found deserted by the owners, and therefore common to every one; yet avoiding

with all this irregularity to come near the infected.* The laws, human and divine, were no longer regarded in consequence of the officers, to put them in force, being either dead, sick or in want of persons to assist them, and every one did just as he pleased. Citizens and relations showed no regard to each other, a brother even fled from his brother, a wife from her husband, and what is more uncommon a parent from its own child. And thus from the desertion of friends and the scarcity of servants, who required enormous wages, multitudes died who might have been saved. It fared no better with the adjacent country, for to omit the castles which presented the same view in miniature with the city, you might see the poor distressed labourers with their families without either the interference of physicians† or help of servants languishing on the highways, in the fields, and in their own houses, and dying rather like cattle than human creatures, and growing dissolute in their manners like the citizens, and careless of everything as supposing every day their last, their thoughts were not so much employed how to improve as to make use of their substance for their support."

But while the dread of contagion and death had thus contributed to annihilate the best feelings of human nature, and to cut asunder all the moral ties of society, different passions led at other times of

* I shall relate another instance where the people did not even scruple about going near the sick and dead for the purpose of gain and theft.

† May I be allowed to remind the reader of the self-denying devotedness shown to their duties by the whole medical profession, during epidemics in modern times.

pestilence the people to rush actually into the presence of contagion, and thus to multiply the victims of its fatal malignity. Mons. Bertrand, in describing the plague at Marseilles in 1720, and which the philosopher also refers to, remarks that the avidity to take possession of an unexpected inheritance was to many the fatal cause of their own destruction. Called to the entire succession of the wealth of a whole family, to whom they were very distantly related, and impatient to know the extent of their new acquisition, they entered, without precaution, into infected houses; and searching indiscriminately among the effects of the deceased, they often found what they sought not, and paid with their lives the forfeit of their cupidity. This fatal inheritance then devolved to relations yet more remote, fortunate if they could profit by such an example, and not fall equally martyrs to indecent and unreasonable transports. It was not, however, the legitimate heirs on whom the punishment of their avidity fell; it was often those who found *in the effects they stole* the just forfeit of this crime. In vain had the commandant absolutely prohibited the removal of any clothes or effects from one house to another: a blind and head-strong rapacity despised alike these wise ordinances and the perils of the contagion.

Another abuse, of a very singular nature, occasioned more than all this the partial renewal of the malady. Will it be believed? Scarcely had the contagion begun somewhat to diminish in its ravages, when the people, impatient to repair the mortality it had occasioned, thought of nothing but re-peopling the city by new marriages; like mariners, who have

been in imminent peril of shipwreck, but are no sooner arrived in port, than forgetting the danger they have escaped, they seek in new pleasures to drown the recollection of past troubles. "Our temples," says that author, "long shut up, were now only opened for the administration of this sacrament; a species of frenzy seemed to have seized on both sexes, which led them to conclude an affair, of all others the most important in the world, in the space of twenty-four hours, and to consummate almost at the same instant. Widows, whose cheeks were yet moist with the tears they had shed over a dead husband, consoled themselves in the arms of a living one, who, perhaps, was in like manner snatched from them a few days after; and in a few days more they were wedded to a third."—*Bertrand's Historical Relation of the Plague at Marseilles*.

Some of the physicians imagined that this frantic passion was a consequence of the malady. I do not share their opinion; the reasons were more palpable, and are to be found in the passions and the moral depravity of the people. Of course these numerous marriages, hastily concluded, were the occasion of spreading afresh the fatal infection.

The thefts, the plunderings, and an infinity of other crimes, the horrors of which we dare not here retrace, were much more frequent in the height of the malady, than in its decline, and were perpetrated generally either by those who served the sick, who carried away the dead, or attended at the hospitals.

What must the state of society have been at that time, if all the laws kept by us sacred, whether they be human or divine, could have been outraged so

enormously; and is it likely that on a similar emergency now, (which God forbid), our present state of society would offer a similar picture of horror and moral depravity? I think not.

So much for the people: let us now proceed to what the constituted authorities did in order to prevent, at least, the propagation of infection at these calamitous times.

The sole *remedies* we find employed against epidemic disease (plague, etc.) of olden times, were exclusively of a religious kind. On one occasion (B.C. 461) prayer-offerings and general supplications in the temples (lib. iii. c. 6, 7) were only resorted to; on another (B.C. 396), after the Sibylline books had been consulted by the Duumvirs, they instituted the new and public ceremony of the lectisternium, to which were joined the same rite in private; universal feastings throughout the city, even amongst the bitterest foes; the suspension of quarrels and law-suits, and the liberation of prisoners from their bonds (v. c. 13); on a third (B.C. 361), after the lectisternium had failed, even dramatic exhibitions in honour of the gods were resolved upon. *Livy* dates from this period the introduction of theatrical entertainments at Rome, which among the Romans have therefore been nothing more than a mere medico-religious rite.

And if we go to a later period, and refer to the epidemics in Great Britain, we find that most extraordinary measures rather tending to aggravate than to diminish infection, have been adopted and carried out. Dr. Mead justly remarks, that the very steps commonly taken by the police, have unfortunately

had a direct tendency to accelerate the progress of epidemics. The direction of the authorities, for instance, ought to be such as to encourage the families first infected to make their misfortune known, for the sake of obtaining assistance, as much as if their house were on fire, whereas the means usually adopted on these occasions, have, in fact, been themselves a severe punishment, and must have contributed to make the infected conceal the disease as long as possible.

The authorities, lay and medical, at the outbreak of the plague of 1665, when they might have already profited by previous visitations, acted in the following manner:—on the disease showing itself, the orders issued by the Lord Mayor and Aldermen, and sanctioned by the college of Physicians, principally related to the strict imprisonment of the sick, in their own houses, by watchmen attending night and day *at the doors* to prevent communication, and this was to continue, at least, a month after all the family was either dead or recovered. Each infected house was ordered to be marked with a red cross of a foot long, in the middle of the door, evident to be seen, and with these usual printed words, that is to say, “Lord have mercy upon us,” to be set close over the same cross, there to continue until lawful opening of the same house! (Order by the Lord Mayor and Aldermen, 1665).

We will pass over the misery and the cruelty inflicted by such measures, when help was most needed, and will only add, that the poison flew out as soon as the Pandora box was opened.

How different has been the conduct of the Lord

Mayor, Aldermen, and Corporation at the outbreak of the cholera in 1848. A separate medical officer of health was appointed together with other officers; every street, court, and lane, was subjected to minute examination, the houses and hovels of the poor visited, money spent liberally, and hospitals and other sanatory establishments thrown wide open to the trembling applicants. The number of cases were accurately registered and published together with observations by the registrars of the districts as to the nature of the locality and probable cause of the propagation—observations, which leading to more minute inquiry, have proved of extreme utility. And different also was the aid offered by the members of the medical profession.

The following was the *King's medicine* for the plague prescribed in the year 1604 by the whole College of Physicians both spiritual and temporal, and generally made use of and approved in the year 1625 and 1636:—"And now (1665), most fitting for this dangerous time of infection to be used all England over".

"Take the herb of virtue (the doing of good) and the herb of patience (otherwise called a waiting upon the Lord) wherewith possesse your souls; instead of herb of grace take another called Christ's grace; and in the place of elder leaves, *elder's examples* following and imitating the elders of Israel; prostrating your souls before the Majesty of God. Let not two things be the ingredients of this King's medicine, the *bramble* and the *wormwood*. Leave out the proud bramble and his leaves, for he would exalt himself above the other trees. Secondly, leave out also the bitter worm-

wood of hate and envy, and proceed to the counsel of God, the best physician. Let there not be among you any root of bitterness and wormwood. Instead of these two, take the humble figge-tree and his leaves, who would not exalt himself above others," etc., etc.

Wise and welcome as such a spiritual admonition to the people is, if followed by active measures and carried out in earnest, the above remedy must have greatly tended to lull the people into inactivity, when we see that it was followed by so cruel a measure as that of shutting up whole families a whole month after they were either dead or recovered. I think that neither a remedy like this, nor a measure like that above stated, may in 1851 be apprehended from Queen Victoria nor from Mr. Alderman Musgrove, the present Lord Mayor.

But England does by no means stand alone in this respect; quite in accordance with the measures adopted in London, if not more absurd and cruel, were those at Naples, where the plague raged in the same year and with even increased fury. It had been brought from Sardinia by a transport with soldiers on board. The distemper was at first called by the physicians a *malignant* fever; but one of them recognizing the character and affirming it to be pestilential, the Viceroy, offended by this declaration, ordered him to be imprisoned, and at last as a favour allowed him to return and die in his own house. By this proceeding of the Viceroy imprisoning and persecuting the only physician whose talent recognized the real nature of the malady, the distemper was neglected, and made a most rapid and furious progress, filling the whole city with consternation; certainly not without cause, for

in less than six months no fewer than 400,000 of the inhabitants were carried off by the disease.

A nun then stepped in, and prophesied that the pestilence would cease upon building a hermitage for her sister nuns upon the hill of St. Martin's, and the edifice was immediately begun with the most ardent zeal, persons of the highest quality strove who should perform the meanest offices; and the violent agitation thus kept up, together with the increasing heats, contributed mainly to diffuse the malady through the whole city, so much so, that the streets and the stairs of the churches were filled with the dead, the number of whom amounted for some time to 15,000 daily.

Now, Prince, proceeding as I do from the conviction that your Royal Highness has a favourable opinion of human society, as at present constituted, and is most favourably impressed with the changes worked by art, science, and education, I should consider myself most fortunate, happy, and amply rewarded, if the preceding pages had in the smallest degree contributed to confirm that opinion; I also proceed, from the conviction that the authorities of our own time are anxious and prudent enough, not only to enact measures and to help when calamities have broken out, but also most anxious to prevent them; and, lastly, I proceed, from the conviction that the people, on the other hand, are prone and willing to carry out those measures, for the welfare of their neighbours and their own. I have further the impression that any suggestions, however modest, if practical and practicable, are received with indulgence by those who have it in their power to carry them out; and thus

impressed, I will conclude my small contribution to the great exhibition by suggesting some measures of precaution, which have urged themselves upon my mind while reading some of the judicious hints thrown out by the philosopher.

The measures to be adopted for the prevention and propagation of epidemic diseases must be directed to two objects, namely, to the prevention of the introduction of the contagion from those places where any of these maladies either prevail, or may be suspected to occur; and to the prevention of the propagation among the population, should any of these diseases threaten to break out.

As regards the first measure, I would suggest,

I. That the attention of the different Governments, home and foreign, be, without a moment's delay, the season being already far advanced, directed to this particular subject, with the urgent request to enjoin their consuls and other authorities, from whom passports are usually obtained, to demand from every applicant who intends to visit London during this year, a medical certificate from an authorised or legal practitioner of the place, certifying that he is free from any infectious disease. This measure, impracticable and complicated as it may appear at first sight, will, after a few moments' reflection, be acknowledged to be, as regards, at least, all Europe, extremely simple, when it is considered that hardly a traveller leaves his town or country without having provided himself with a passport. And just as well as the colour of the eyebrows, or a particular mark on the nose and chin, the age of the person, the height even to inches, are scrupulously entered on a passport, the

words *free from contagion* might form no superfluous addition. The good resulting from this simple regulation must be evident; and if passports have ever been productive of good they would be so on this occasion, when containing what I have suggested.

II. All captains leaving foreign ports for England and conveying passengers, should be requested not to allow any one whose health might be suspected (as regards contagion) and who is not provided with such a passport (when coming from countries where passport regulations are enjoined) to go or remain on board their ships.

That captains be provided with a certificate testifying to the health of the port from which they sailed is, I think, a common regulation.

III. That a medical committee under superintendence of the Commissioners of the exhibition, be formed to consist of five physicians, four English and one foreign. This committee to be entirely separate from the board of health lately appointed, whose duties are already much too onerous to justify any additional burden to be put upon them. I have mentioned the number to be only five, proceeding from the conviction and experience that five members of a committee often do more than twenty, because they have no other to rely upon, and go in earnest to work. The foreign physician who is to join the other four, should be conversant with at least the principal continental languages besides the English, and be well acquainted with the advantages which the numerous sanitary institutions of this metropolis are so capable and ready to offer to foreigners, as also with the habits and general condition of health of the people of the Continent.

IV. That a subject of their first solicitude should be that the visitors arriving in the different ports of this country be examined on their arrival, of course only with respect to contagion. This may be carried out simply by a young delegate medical officer going on board a ship and making inquiries about the general health of each individual, before the latter be allowed to go ashore. He of course will see the certificate of the captain, and also make inquiries whether any deaths have occurred during the voyage, and if any, what has been their nature. He will, besides, be provided with the necessary instructions how to act in case his suspicion should be justly roused.

This measure should be particularly attended to on board those ships which arrive from countries that are known to be seldom entirely free from infectious maladies, as for instance, Egypt, Corfu, Cephalonia, Malta, Naples, Sicily, Tunis, Tangiers, the Levant, and other parts of the Mediterranean.

V. As regards passengers arriving by rail from the coasts or the country, a knowledge of the general condition of their health might be sufficient and obtained by similar delegate medical officers attending at the stations; and it might be obtained with the same facility as the tickets are collected from each individual; the medical delegate accompanying the railway officer on his collecting them. I acknowledge that the execution of this measure may prove somewhat more difficult, but it must be granted that the labour bestowed on it or the little inconvenience on the part of the passengers, will not be so great as the beneficial effects resulting therefrom to the passengers themselves and the public at large. For in preventing

propagation the great and first rule is, to resist in the beginning (*principiis obsta*), and this circumstance having been commonly overlooked, has proved most disastrous in its effects.

VI. I would suggest that some regulations in the form of a circular, short and distinct, be published by the authority of the Commissioners containing the days and hours of admission to the exhibition, also certain rules which are likely to assist in preventing confusion and over-crowding, near the exhibition as well as in other localities, and enjoining temperance and other regulations conducive to health. Such a circular to be handed gratuitously to each visitor although it might be preferable to sell it at a low price, from the reason of its contents then being more appreciated by the purchaser. These regulations to be published in three or four of the principal languages.

VII. It might likewise prove useful if the Medical Board, or the Commissioners themselves, were to put themselves into communication with the foreign Commissioners and agents sent to London by the foreign Governments, so as to join their efforts in procuring the necessary accommodation.

VIII. It might also prove useful to request the different Water Companies to give the most liberal supply in their power during these few months. Hotel-keepers, and those housekeepers who are in the habit of accommodating a large number of visitors, to be particularly reminded, in cases of infectious or serious illness occurring in their houses, to see that the necessary aid, medical and otherwise, be procured without the least possible delay.

Prince, you have been told by the philosopher that your popularity is at stake, and your position as Consort, Father, and Citizen endangered. Does it not appear as if your Royal Highness were leading the whole country to a precipice, over the abyss of which it could only save itself by a *saltus mortalis*?

The Exhibition will prove neither dangerous to the country nor to your popularity; decidedly the reverse: and the beneficial effects resulting from it, with respect to art and science, education and religion, and the political and social institutions, will be incalculable, and be felt far beyond the time of all who now censure or praise it.

In concluding this my small contribution, and before sending it forth to the Great Exhibition, which will form an era in the history of England, and fill one of the brightest pages of the reign of Queen Victoria, I wish I had been allowed a little more time, so as to make it more elaborate and more worthy of its illustrious reader; and I also wish that I could have used the language of my own country, so as not to offend against another, the beauties of which I may admire but cannot make my own.

I have the honour to sign myself,

with the highest respect,

PRINCE,

Your Royal Highness's

Most humble and obedient servant,

J. C. H. FREUND.

LONDON: 7, WEST STREET, FINSBURY CIRCUS.

1st February, 1851.